

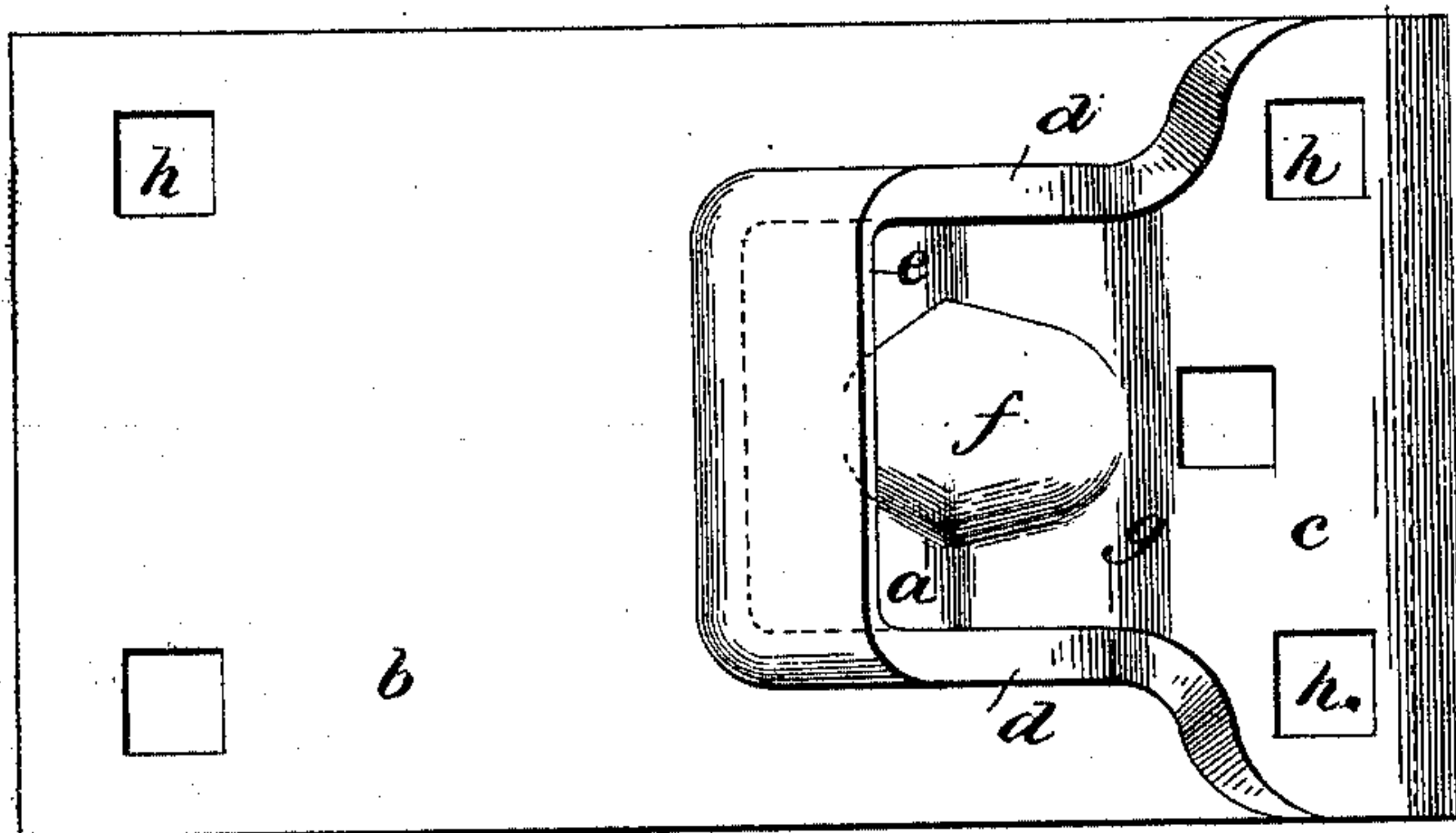
(No Model.)

C. T. SCHOEN.  
COMBINED RAIL BRACE AND TIE PLATE.

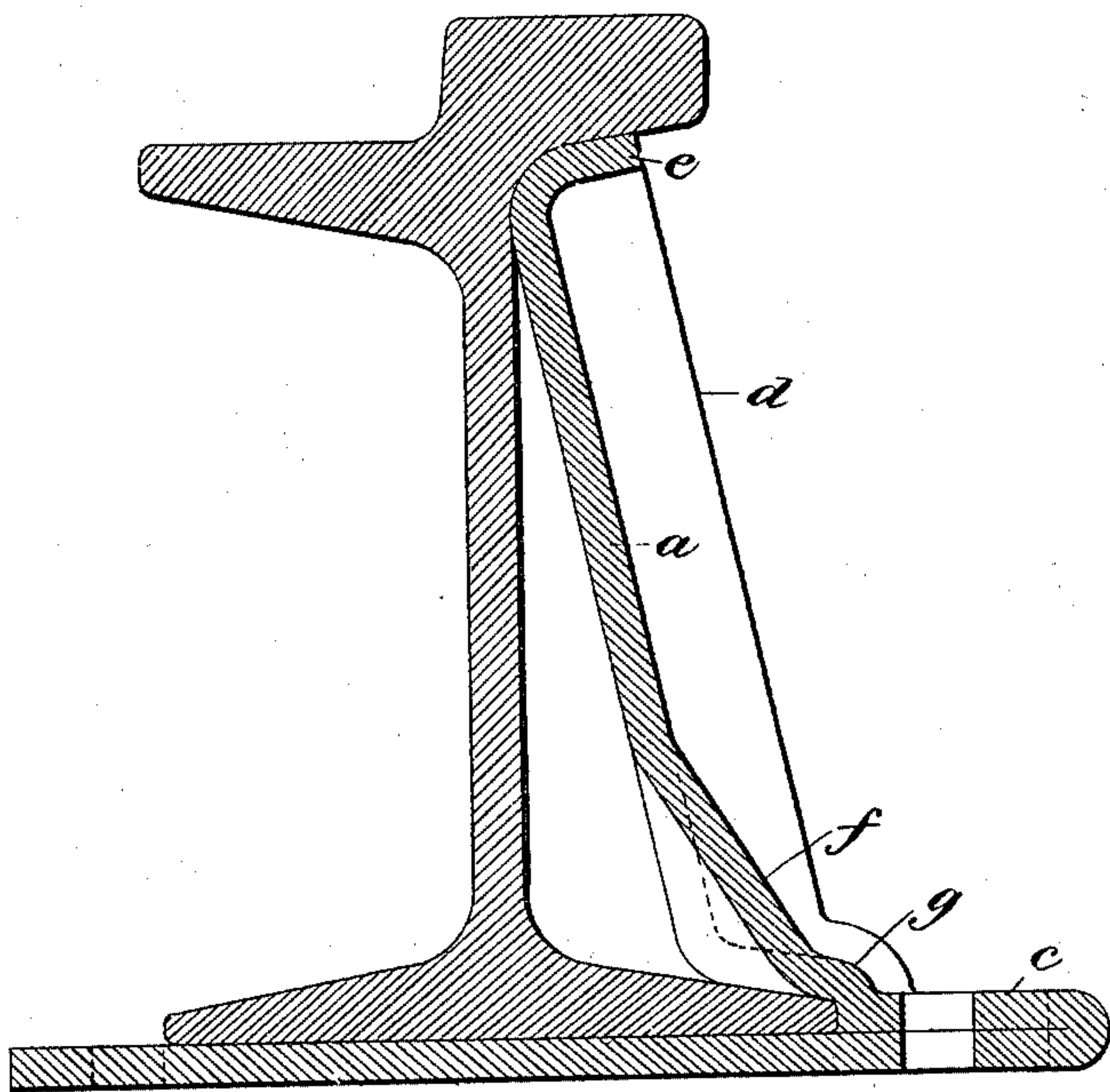
No. 509,608.

Patented Nov. 28, 1893.

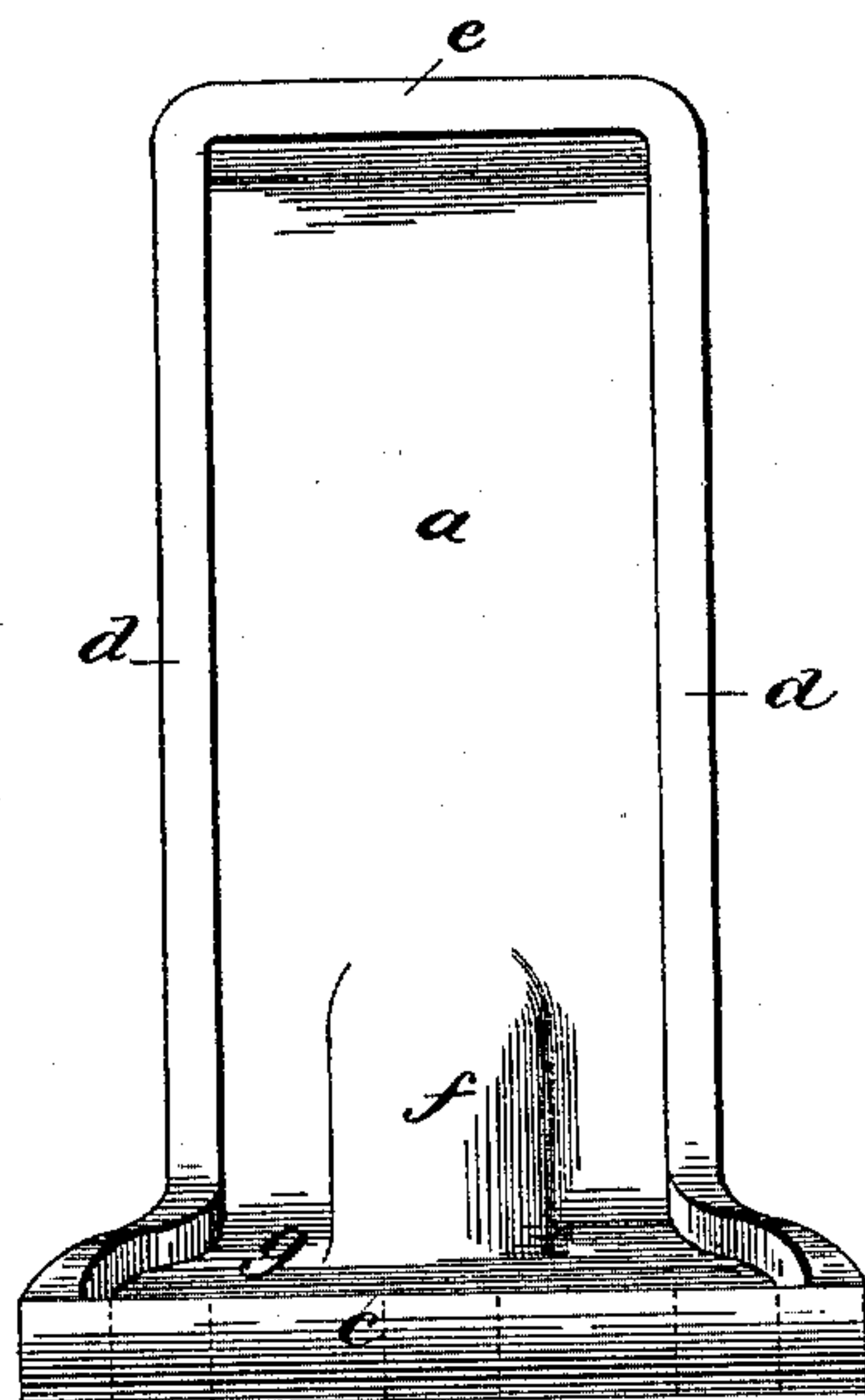
*Fig. 1*



*Fig. 2*



*Fig. 3*



Witnesses:  
J. F. Coleman  
C. A. Finckel

Inventor  
Charles T. Schoen  
by W. H. Finckel  
his atty.

# UNITED STATES PATENT OFFICE.

CHARLES T. SCHOEN, OF ALLEGHENY, PENNSYLVANIA.

## COMBINED RAIL-BRACE AND TIE-PLATE.

SPECIFICATION forming part of Letters Patent No. 509,608, dated November 28, 1893.

Application filed August 7, 1893. Serial No. 482,495. (No model.)

*To all whom it may concern:*

Be it known that I, CHARLES T. SCHOEN, a citizen of the United States, residing at Allegheny, in the county of Allegheny and State of Pennsylvania, have invented a certain new and useful Improvement in a Combined Rail-Brace and Tie-Plate, of which the following is a full, clear, and exact description.

The object of this invention is to provide an economical, durable and efficient rail-brace and tie-plate for use in securing the rails in a railway track.

Prior to my invention, there have been made combined rail-braces and tie-plates of various forms and of a single piece, but, so far as I am aware, the form of combined rail-brace and tie-plate forming the subject of this invention, has not hitherto been produced.

My invention consists in a combined rail-brace and tie-plate, made of a single piece of metal, and having the brace constructed with edge-flanges to stiffen and strengthen the same, substantially as I will now proceed more particularly to set forth and finally claim.

In the accompanying drawings illustrating my invention, in the several figures of which like parts are similarly designated, Figure 1 is a plan view. Fig. 2 is a vertical cross-section showing the device applied to a street railway rail of girder pattern; and Fig. 3 is an end-view.

The rail-brace *a* and tie-plate *b* are made in one piece, the former being bent up from the latter and having a flat portion or foot *c* extending parallel with the tie-plate in the direction of the length thereof. The brace proper rises from the tie-plate at a proper angle to adapt it to the kind of rail to which it is to be applied. This rail-brace is provided with the edge-flanges *d*, *e*, the former extending longitudinally of the brace, and the latter extending out transversely thereof in such

manner and in such shape as to fit snugly beneath the head of the rail, substantially as shown in Fig. 2. In order to further increase the stiffness and strength of the brace, I prefer to make a projection *f* at the base; and in order to increase the efficiency of the engagement of the brace with the base of the rail, I prefer to make cavities *g*, which fit over and snugly hug the foot of the rail when the device is applied. *h* are the holes for the reception of spikes for fastening the device in position.

The preferred manner of constructing this combined rail-brace and tie-plate is by striking up the same from plate metal, particularly plate steel, in dies.

Obviously, the configuration of the combined rail-brace and tie-plate will be changed to suit the kind of rail to which it is to be applied. One or more reinforces *f* may be used in the device.

By means of my invention, a very economical, durable and efficient combined rail-brace and tie-plate is produced.

What I claim is—

1. A combined rail-brace and tie-plate, made in one piece of metal, and having the brace provided with the edge-flanges *d* and *e*, substantially as described.

2. The within-described combined rail-brace and tie-plate, composed of the brace *a*, having the side and end-flanges *d* and *e*, respectively, the projection *f*, and the foot-holding cavities *g*, and the tie-plate *b*, all constructed of one piece of metal by die-pressing, substantially as described.

In testimony whereof I have hereunto set my hand this 5th day of August, A. D. 1893.

CHARLES T. SCHOEN.

Witnesses;

J. T. MILNER,  
AD. JUDAL.